

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

Applicant's or agent's file reference 0000054925	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/010492	International filing date (<i>day/month/year</i>) 18.09.2004	Priority date (<i>day/month/year</i>) 26.09.2003
International Patent Classification (IPC) or national classification and IPC . C09K15/20 C07B63/04 C07C7/00		
Applicant BASF Aktiengesellschaft		

- a. ☒ (sent to the applicant and to the International Bureau) a total of 5 sheets, as follows:
- ☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
- ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
- b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s))

<input checked="" type="checkbox"/>	Box No. I	Basis of the report
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application

Form PCT/IPEA/409 (cover sheet) (January 2004)

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-34 _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- nos. _____ as originally filed/furnished
- nos.* _____ as amended (together with any statement) under Article 19
- nos.* 1-21 _____ received by this Authority on 13.05.2005 with letter of 12.05.2005
- nos.* _____ received by this Authority on _____
- ☐ the drawings:
- sheets _____ as originally filed/furnished
- sheets* _____ received by this Authority on _____
- sheets* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages _____
- ☐ the claims, nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>1-21</u>	YES
		Claims _____	NO
	Inventive step (IS)	Claims <u>1-21</u>	YES
		Claims _____	NO
	Industrial applicability (IA)	Claims <u>1-21</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	Reference is made to the following documents:		
	D1: GB-A-2 226 066 (RHONE POULENC CHIMIE) 20 June 1990 (1990-06-20)		
	D2: DE 199 20 796 A (ROEHM GMBH) 9 November 2000 (2000-11-09)		
1.1)	Documents D1 and D2 are considered the prior art closest to the subject matter of claims 1 and 19.		
	Document D1 discloses a method for stabilising (see the abstract) polymerisable compounds with respect to polymerisation when used in compositions which are stored and transported (see page 1, line 1 to page 2, line 6; page 5, lines 13 - 18 and page 9, lines 1 - 8), characterised by the use of at least one radical interceptor that contains at least two glycine units (e.g. nitrilotriacetic acid, N-(2-hydroxyethyl)ethylenediaminetriacetic acid; see page 4, lines 16 - 26).		
1.2)	D1 also discloses stabiliser mixtures which		

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	<p>contain a radical interceptor that contains at least two glycine units, a further stabiliser and a polymerisable compound (see the abstract, claim 1, and page 4, lines 16 - 26).</p> <p>1.3) D1 also discloses the use of the mixtures for stabilising polymerisable compounds with respect to polymerisation during storage and/or transport (see page 1, line 1 to page 2 line 6; page 5, lines 13 - 18 and page 9, lines 1 - 8).</p> <p>Document D1 does not disclose any compounds that contain at least two glycine units and at least one amide and/or ester unit.</p> <p>The subject matter of claims 1 and 19 is therefore considered novel over D1.</p> <p>2.1) Document D2 discloses a method for stabilising polymerisable compounds during the production thereof (see claim 1) and during the preparation thereof (see claim 8 and example 1), characterised by the use of a radical interceptor that contains at least two glycine units (e.g. nitrilotriacetic acid, N-(2-hydroxyethyl)ethylenediaminetriacetic acid; 3,6-dioxaoctamethylenedinitrilotetraacetic acid (see claim 6)).</p> <p>2.2) D2 also discloses stabiliser mixtures which contain a radical interceptor that contains at least two glycine units, a further stabiliser and a polymerisable compound (see claims 1 and 6).</p>

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	<p>2.3) D2 further implicitly discloses use of the mixtures for stabilising polymerisable compounds with respect to polymerisation during preparation (see claim 8 and example 1).</p> <p>Document D2 does not disclose any compounds that contain at least two glycine units and at least one amide and/or ester unit.</p> <p>The subject matter of claims 1 and 19 is therefore considered novel over D2.</p> <p>3.1) The subject matter of claims 1 and 19 thus differs from that known from D1 and D2 in that the stabilising compounds also contain at least one amide and/or ester unit.</p> <p>The current invention therefore addressed the problem of providing an alternative method for stabilising polymerisable compounds with respect to polymerisation during the preparation, storage and/or transport thereof (page 2, lines 12 - 14), by using alternative compounds that contain at least two glycine units and at least one amide and/or ester unit.</p> <p>There is nothing in the prior art to suggest choosing such compounds from the compounds containing at least two glycine units.</p> <p>The subject matter of claims 1 and 19 is therefore</p>

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	<p data-bbox="418 352 1365 384">considered inventive in relation to the prior art.</p> <p data-bbox="302 453 1365 632">3.2) Claims 2-18 are dependent on claim 1 and claims 20 and 21 are dependent on claim 19 and therefore likewise meet the PCT requirements for novelty and inventive step.</p>

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Clarity

- 4) Claim 2 is unclear. According to claim 1, compounds of formula (I) should contain at least two glycine units. Since R7 and R8 may not be hydrogen and since n and k are not necessarily 1, the presence of two glycine units is guaranteed only when R1 and R2 are hydrogen.

However, according to claim 2, R1 and R2 may also be groups other than hydrogen.